

IN THE CLAIMS

Claims 1 – 10, and 13 - 20 have been cancelled. Claims 11, 12, and 21 – 24 have been amended.

Claims 1 – 10 (cancelled).

11. (currently amended) A musical tone reproducing apparatus that is provided in a portable terminal apparatus ~~having a~~ and connected through a bus to a system controller ~~for controlling the whole apparatus~~, and that carries out musical tone reproduction, the musical tone reproducing apparatus comprising:

a tone generator memory ~~as a general purpose memory in which is stored a tone color parameter group comprising a predetermined number of~~ that has a first input terminal having a first bit width, a first output terminal having the first bit width, and a storage region constructed based on the first bit width, is capable of storing various data including tone color parameters, and is used for general purpose use ;

a cache memory ~~into which are inputted tone color parameters read out from said tone generator memory at a predetermined data width and from which are outputted the inputted tone color parameters at a data~~ that has a second input terminal and a second output terminal having a second bit width larger than the predetermined data first bit width;

a tone generator ~~for carrying out musical tone reproduction based on tone color parameters outputted from said cache memory; and~~

a tone generator controlling device, wherein: ~~for controlling such that, based on a command from said system controller to change a tone color, a tone color parameter for a tone color to be changed to is read out from said tone generator memory and is~~

~~transferred to said cache memory, and the tone color parameter for the tone color to be changed to is transferred from said cache memory to said tone generator~~

the system storage device stores beforehand one channel's worth of a plurality of tone color parameters to be used for generation of a predetermined tone color in units of a first bit width,

said tone generator memory is supplied at the first input terminal thereof with one channel's worth of the plurality of tone color parameters from the system storage device via the bus by a plurality of times of transfer under control of the system controller and stores therein the supplied tone color parameters,

when a tone color is to be changed, the one channel's worth of the plurality of tone color parameters that are read out from the first output terminal of said tone generator memory are sequentially transferred to the second input terminal of said cache memory and stored in said cache memory,

said tone generator controlling device supplies said tone generator with control data generated based on sequence data in a reproduction timing of the control data, and supplies said cache memory with a read request when the tone color is used,

said cache memory outputs the one channel's worth of the plurality of tone color parameters from the second output terminal thereof to said one generator by a one time transfer in accordance with the read request supplied from said tone generator controlling device, and

said tone generator reproduces a musical tone based on the one channel's worth of the plurality of tone color parameters and the control data.

12. (currently amended) The musical tone reproducing apparatus as claimed in claim 11, wherein said ~~system controller~~ tone generator controlling device reads out the tone color parameter from said tone generator memory by specifying a leading address given to the tone color parameter for the tone color to be changed.

Claims 13 – 20 (cancelled).

21. (currently amended) The musical tone reproducing apparatus as claimed in claim 20, wherein said first tone generator is a random access memory, ~~and said second tone generator memory is a read only memory.~~

22. (currently amended) The musical tone reproducing apparatus as claimed in claim 11, wherein the portable terminal apparatus has a receiver for receiving external data, and the external data received by said receiver is stored in said system storage device.

23. (currently amended) A ~~portable terminal apparatus having a~~ musical tone reproducing apparatus as claimed in claim 11, wherein said system controller carries out a portable terminal function process as a main process.

24. (currently amended) A method of controlling a musical tone reproducing apparatus, that is provided in a portable terminal apparatus, ~~having a~~ and is connected through a bus to a system controller and a system storage device in the portable terminal apparatus, to carry out musical tone reproduction, comprising the steps of:
storing in the system storage device, beforehand, one channel's worth of a plurality of tone color parameters to be used for generation of a predetermined tone color in units of the first bit width;

supplying at a first input terminal of said tone generator memory the one

channel's worth of the plurality of tone color parameters from the system storage device
via the bus by a plurality of time of transfers under control of the system controller;

storing, in the tone generator memory, the supplied tone color parameters;

~~reading out a tone color parameter for a tone color to be changed to from a tone~~
~~generator memory based on a command from said system controller to change the~~
~~tone color, said tone generator memory being a general purpose memory in which is~~
~~stored a tone color parameter group comprising a predetermined number of tone color~~
~~parameters , when a tone color is to be changed, the one channel's worth of the~~
plurality of tone color parameters and sequentially transferring the one channel's worth
of the plurality of tone color parameters to the second input terminal of the cache
memory;

storing the one channel's worth of the plurality of tone color parameters in the
cache memory;

supplying said tone generator with control data generated based on sequence
data in a reproduction timing of control data;

supplying said cache memory with a read request when the tone color is used;

~~inputting the tone color parameter for the tone color to be changed to read out~~
~~from the tone generator memory to a cache memory, at a predetermined data width;~~

~~outputting the tone color parameter for the tone color to be changed to from the~~
~~cache memory at a data width larger than the predetermined data width;~~

~~transferring the tone color parameter for the tone color to be changed to that is~~
~~outputted from the cache memory at the data width larger than the predetermined data~~
~~width to a tone generator;~~

outputting, from said cache memory, the one channel's worth of the plurality of tone color parameters from the second output terminal thereof to the tone generator by a one time transfer in response to the read request; and

causing the tone generator to generate a musical tone based on the ~~transferred tone color parameter~~ outputted one channel's worth of the plurality of tone color parameters and the control data.